EXTRACTION AND UTILIZATION OF CELL GROWTH-PROMOTING PEPTIDES FROM SILK PROTEIN

Substitute specification okay to enter
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TECHNICAL FIELD

The present invention relates to peptides from silk protein which are excellent in promoting cell growth, a production method thereof, and application thereof to the fields of medicaments, quasi drugs, cosmetics, etc., as a material for skin care as well as to cell culture substrates as a biomaterial.

RELATED ART

Since silk threads have been used as a surgical suture from the old days, silk protein is regarded as a biocompatible material, and new developments focusing attention on this property have recently become active for its new uses in various fields.

For example, silk threads are solubilized to form an aqueous silk protein solution, followed by conversion to powder by precipitation, drying, grinding, etc., for additives to cosmetics; the aqueous silk protein solution is made into a film-like material by casting on a plate and the like for a cell culture bed or wound-covering and coating material; and the silk protein solution is made into a gel-like material for use in food and cosmetics. The developments of these uses are pursued.

Such developing examples include, for example, Kokai (Jpn. unexamined patent publication) 62-000415, Kokoku (examined patent publication) 01-044320, Kokai (Jpn. unexamined patent publication)01-254164, Kokoku (examined patent publication) 06-004679, Kokai (Jpn. unexamined patent publication) 11-139986, Kokai (Jpn. unexamined patent publication) 11-276876, Patent No. 2997758, Patent No. 2990239, Kokai (Jpn. unexamined patent publication) 11-253155, Patent application 2002-230656, Patent